

Patent Claims

1. Optical arrangement with telecentric beam region for imaging objects, comprising at least one infinity-imaging objective and at least one eyepiece and a tube lens of suitable focal length which is arranged between the latter at a fixed distance from the objective, characterized in that at least one optical element (7; 8) for laterally splitting off at least a first partial beam path is provided in the space between the objective (3) and the tube lens (4) in which the telecentric beam path is located, and in that a tube lens (9; 12, 13) is located at a suitable distance from the objective (3) in each of these first partial beam paths.
2. Arrangement according to claim 1, characterized in that at least a second partial beam path is branched off from at least one of these first partial beam paths, and in that a tube lens (15; 20; 23; 24; 28; 29; 35; 36) is located at a suitable distance from the objective (3) in each of these second partial beam paths.
3. Arrangement according to claim 2, characterized in that at least a third partial beam path is branched off from at least one of these second partial beam paths, and in that a tube lens (32; 39) is located at a suitable distance from the objective (3) in each of these third partial beam paths.
4. Arrangement according to one of claims 1 and 2, characterized in that the tube lenses (9; 12; 13; 15; 20; 23; 24; 28; 29; 32; 35; 36; 39) arranged in the first, second and third partial beam paths have the same focal length or different focal lengths.
5. Arrangement according to one of the preceding claims, characterized in that optical and/or physical beam splitter elements, known per se, are provided for branching the first, second and third partial beam paths, wherein these beam splitter elements are arranged in the space between the objective (3) and the respective tube lens (9; 12; 13; 15; 20; 23; 24; 28; 29; 32; 35; 36; 39) of the partial beam path to be branched.
6. Arrangement according to one of the preceding claims, characterized in that interchangeable devices or modules are provided which carry beam splitter elements and which are coupled with controllable drive units for the purpose of insertion into the respective partial beam path.

7. Arrangement according to claim 6, characterized in that the beam splitter elements are arranged in the interchangeable devices in an exchangeable manner.

8. Arrangement according to one of the preceding claims, characterized in that diaphragms (16; 17) and/or optical filters (18), particularly interference filters, color filters or polarizing filters, which serve to influence the optical characteristics of the light of the respective partial beam path are arranged in the first partial beam paths, second partial beam paths and/or third partial beam paths.